

WHAT IS CLAIMED IS:

1. A power module comprising:

a first lead frame having a first conductive pad;

a first power device disposed on and electrically connected to said first conductive pad; and

5 a first heatsink in thermal contact with said first conductive pad;

wherein there is no intermediate body disposed between said first conductive pad and said heatsink that retards heat transference from said first power device to said first heatsink.

2. A power module according to claim 1, further comprising a

lead integrally connected to said first conductive pad.

3. A power module according to claim 1, further comprising a

second lead frame having a second conductive pad, a second power device disposed on and electrically connected to said second conductive pad, and a second heatsink in thermal contact with said second conductive pad, wherein
5 there is no intermediate body between said first conductive pad and said second heatsink that retards heat transference from said first power device to said first heatsink.

4. A power module according to claim 3, wherein said first

heatsink and said second heatsink are electrically isolated.

5. A power module according to claim 3, wherein said first heatsink and said second heatsink are disposed within a common frame.

6. A power module according to claim 3, wherein said first power device and said second power device are arranged to form a half-bridge circuit.

7. A power module according to claim 3, wherein said first and second power device are power MOSFETs each having its electrode connected electrically to a respective conductive pad.

8. A power module according to claim 3, wherein said first and second power devices are N-channel power MOSFETs each having its drain electrode electrically connected to a respective conductive pad.

9. A power module according to claim 8, further comprising a common conductive node, and wherein each of said N-channel power MOSFETs includes a source electrode electrically connected to said common conductive node.

10. A power module according to claim 3, wherein said first power device is a P-channel power MOSFET and said second power device is an N-channel power MOSFET.

11. A power module according to claim 10, further comprising a common conductive node, and wherein each of said power MOSFETs includes a source electrode electrically connected to said common conductive node.